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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/477,703	06/07/1995	MITJA V. HINDERKS	RCH-22164-G-	6328

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EXAMINER

KAMEN, NOAH P

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/477,703

Applicant(s)

HINDERKS, MITJA V.

Examiner

Noah Kamen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 198-348 is/are pending in the application.
- 4a) Of the above claim(s) 344-348 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 242-255, 257-269 and 271-276 is/are allowed.
- 6) ☒ Claim(s) 198-210, 215-217, 219-221, 224-227, 229-231, 235, 237, 238, 240, 256, 270, 277-282, 284-286, 288-290, 292-294, 296, 307, 321-343 is/are rejected.
- 7) ☒ Claim(s) 211-214, 218, 222, 223, 228, 232-234, 236, 239, 241, 283, 287, 291, 295, 297-306 and 308-320 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1) The status of the parent applications on page 1 of the specification must be updated- they are "abandoned".

2) The font size of the specification and claims appears to be too small. See MPEP 37 CFR 1.52: Text written in a nonscript type font (e.g., Arial, Times Roman, or Courier, preferably a font size of 12) lettering style having capital letters which should be at least 0.3175 cm. (0.125 inch) high, but may be no smaller than 0.21 cm. (0.08 inch) high (e.g., a font size of 6).

3) The applicant is directed to provide a list showing the figure where each claim is shown. The applicant has indicated that various limitations may not be shown in the same figure, but that features of different figures may be mixed and matched. The examiner contends that the mere statement that various figures may be combined may not provide sufficient basis on how to make the claimed invention depending on the complexity of the subject matter.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Claim 221 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1+22 of copending Application No. 08/477704 in view of Iver et al (3534828). It would have been obvious to wrap the engine of 08/477704 with the housing of Iver et al which includes foam for noise reduction. The foam will inherently provide thermal insulation. As regard the other limitations, claim 221 is broader in scope than claims 1+22.

This is a provisional obviousness-type double patenting rejection.

NOTE, the examiner does not have the time to compare all 160 claims of 08/477704 with all 150 claims of the present invention for every possible double patenting rejection. The above is merely given as an example. A terminal disclaimer will overcome all possible double patenting issues.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 207, 219, 230, 240, 256, 270, 285, 307, and 321-343 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 207, 230, 256, 285, 307, and 321 set forth "structure" as both defining a volume and then having said volume being located between the structure and assembly. This is impossible something cannot be between itself. In regard to claim 219, ascribing a purpose to an element without sufficient structure will be given little weight. Because of the indefiniteness, no art has been applied to these claims. Nevertheless, the patent to Brown (2918045) does show structure surrounding a cylinder assembly adjacent port 19 and Berger (3503716) does shown catalytic

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filamentary material in an engine exhaust. The applicant should expect a rejection based on these references when the above claims are corrected and so should amend accordingly.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 198, 199, 202, 203, 206, 208, 216, 217, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould (1276346) in view of Iver et al (3534828). Gould shows a cylinder assembly at 18, a component at 40, toroidal chambers at 30, 31, a component fastener 43, cylinder assembly fasteners 19, a passage extending . However, no housing is shown. Iver et al show a housing enclosing an engine for reducing noise. Because the housing has foam it would inherently provide thermal insulation. It would have been obvious to one of ordinary skill in the art to place the housing of Iver et al around the engine of Gould to reduce noise. In regard to claim 206, the depression reads on microscopic depressions formed by imperfections of manufacturing.

Claims 198, 200, 209, 210, 220, 277, 278, 279, 281, 284, 286, 288, 289, 290, 296, 293, are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd (3667876) in view of Iver et al (3534828). Boyd shows a cylinder assembly at 63, a component at 74, toroidal chambers near 103, means for rotations at 76,77, . However, no housing is shown. Iver et al show a housing enclosing an engine for reducing noise. Because the housing has foam it would inherently provide thermal insulation. It would have been obvious to one of ordinary skill in the art to place the housing of Iver et al around the engine of Boyd to reduce noise. In regard to claim 220, the component is disengagable from the cylinder assembly if the engine is

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disassembled. The structure is defined as the covering of Iver et al, and the "housing" is so broad as to read on a building in which the engine is located. In regard to claim 281, the cylinder assembly is made from several parts (61, 64), and while no fasteners are shown, bolts are notoriously well known.

Claims 280, 292 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd in view of Iver et al as applied to claim 277 above, and further in view of Goldsborough. It would have been obvious to one of ordinary skill in the art to make at least the cylinder assembly and piston of Boyd from ceramic to increase thermal efficiency as taught by Goldsborough. In regard to claim 292, the electric circuit reads on a spark plug.

Claims 282, 294, are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd in view of Iver et al as applied to claim 277 above, and further in view of JP63-235648. The material of the component in Boyd is not set forth as comprising ceramic. JP'648 discloses a piston crown 3 of ceramic secured by a fastener 9, which would improve thermal efficiency of the engine, and to do likewise in Boyd would have been obvious to one of ordinary skill in the art.

Claims 201, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould in view of Iver et al as applied to claim 198 above, and further in view of JP63-235648. The material of the component in Gould is not set forth as comprising ceramic. JP'648 discloses a piston crown 3 of ceramic, which would improve thermal efficiency of the engine, and to do likewise in Gould would have been obvious to one of ordinary skill in the art.

Claims 198, 204, 205 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arney (3757748) in view of Iver et al. Arney shows a cylinder assembly at 13a, 13b with mirrored components 103, toroidal chambers near 76 and 189. However, no housing is shown.

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Iver et al show a housing enclosing an engine for reducing noise. Because the housing has foam it would inherently provide thermal insulation. It would have been obvious to one of ordinary skill in the art to place the housing of Iver et al around the engine of Arney to reduce noise.

Claims 201 and 215 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould in view of Iver et al as applied to claim 198 above, and further in view of Goldsborough (1812870). It would have been obvious to one of ordinary skill in the art to make at least the cylinder assembly of Gould partly from ceramic to increase thermal efficiency as taught by Goldsborough. In regard to claim 215, the electric circuit reads on a spark plug.

Claims 221, 226, 229, 231, 237, 277, 278, are rejected under 35 U.S.C. 103(a) as being unpatentable over DE3607421A in view of Iver et al. DE'421 shows a cylinder portion 2, head portions 5, a component at 8, a passage at 13, a cylinder assembly fastener 7. However, no housing is shown. Iver et al show a housing enclosing an engine for reducing noise. Because the housing has foam it would inherently provide thermal insulation. It would have been obvious to one of ordinary skill in the art to place the housing of Iver et al around the engine of De'421 to reduce noise. In regard to claim 229, the depression reads on microscopic depressions formed by imperfections of manufacturing.

Claims 224, 225, 235, are rejected under 35 U.S.C. 103(a) as being unpatentable over DE3607421A as applied to claim 221 above, and further in view of Goldsborough. It would have been obvious to one of ordinary skill in the art to make the cylinder assembly and component of DE'421 from ceramic to increase thermal efficiency as taught by Goldsborough. In regard to claim 235, the electric circuit reads on a spark plug.

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Claims 227, 238, are rejected under 35 U.S.C. 103(a) as being unpatentable over DE3607421 in view of Iver et al as applied to claim 221 above, and further in view of JP63-235648. The material of the component in DE'421 is not set forth as comprising ceramic. JP'648 discloses a piston crown 3 of ceramic secured by a fastener 9, which would improve thermal efficiency of the engine, and to do likewise in Gould would have been obvious to one of ordinary skill in the art.

Allowable Subject Matter

Claims 211-214, 218, 222, 228, 223, 232-234, 236, 239, 241, 283, 287, 291, 295, 297-306, 308-320 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 242-255, 257-269, 271-276, are allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Noah Kamen whose telephone number is 571 272 4845. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Cronin can be reached on 571 272 4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Noah Kamen
Primary Examiner
Art Unit 3747

nk